

Application No. 10/664,631
Amdt. dated 23 February 2009
Reply to Office Action of 28 October 2008

REMARKS / ARGUMENTS

The application contains claims 1-4, 7-17, 20-34 and 37-47. Claims 1, 15 and 32 have been amended. No new matter has been introduced. Reconsideration is respectfully requested.

Claims 1-4, 14-17 and 32-34 were rejected under 35 U.S.C. 103(a) over Sherman (U.S. Patent 7,046,690) in view of Bajic (U.S. Patent Application Publication 2003/0227893) and further in view of Ozugur (U.S. Patent 7,289,463). (The Official Action referred to Ozugur as U.S. Patent Application Publication 2004/0203740, but Applicant believes this reference was a typographical error.) While disagreeing with the grounds of rejection, Applicant has amended independent claims 1, 15 and 32 in order to sharpen the distinction of the claimed invention over the cited art.

Claim 1 recites a method in which a plurality of access points in a WLAN communicate over the air with a mobile station using a common BSSID. Each access point, however, is assigned its own MAC address, in addition to the BSSID, and is configured to emulate mobile station communications. Therefore, contrary to conventional functionality, in which an access point acknowledges all uplink messages that are sent to its BSSID, each access point in the method of claim 1 ignores uplink data messages that are not addressed to its MAC address.

In rejecting claim 1, the Examiner acknowledged that Sherman and Bajic fail to teach assigning MAC addresses to the access points and configuring the access points to emulate mobile station communications, but maintained that Ozugur supplies the missing teaching.

Ozugur describes a hierarchical wireless network and an associated method for delivering IP packets to mobile stations (title). In other words, Ozugur is concerned essentially with what happens on the downlink. He addresses the problem that in prior

art systems, the edge router attempting to deliver downlink packets to a mobile station is unaware of the necessary MAC addresses, and it therefore becomes necessary to broadcast downlink to all the mobile stations in multiple basic service sets (BSSs) (col. 4, lines 7-32). This process wastes bandwidth and battery life (col. 4, lines 33-41). To avoid this problem, a WiARP server 38 maintains a table containing the IP addresses of mobile stations and the wireline MAC addresses of the corresponding access points. This table is used by a distribution system gateway (DSG) in transmitting packets over the wireline distribution system to the appropriate access points for delivery to the mobile stations (Figs. 2, 3a; col. 4, line 62 – col. 5, line 14; col. 7, lines 28-46).

Ozugur is not concerned at all with uplink communications, which appear to proceed in his system in the conventional way. Ozugur's Figs. 1 and 2, for example, shows a single access point in each BSS. This access point will naturally receive and acknowledge all uplink messages from the mobile stations in the BSS, in accordance with WLAN convention. There is no need or reason for the mobile stations to specify any wireless MAC address in their uplink communications, and Ozugur does not indicate or even hint that they might do so.

By contrast, in the method of claim 1, a plurality of access points belong to the same BSS (and therefore share a common BSSID). The assignment of MAC addresses to the access points and mobile station emulation by the access points are used in solving problems that arise in handling of uplink communications in this situation (see paragraph 0010, for example, in US 2004/0063455, the published version of the present patent application).

In order to clarify this point of distinction, Applicant has amended claim 1 to recite specifically that a respective MAC address is assigned to each access point for use in communicating with mobile stations, and that the access points emulate mobile station communications in handling uplink communications from the mobile stations. The

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added claim language is supported in the specification in paragraphs 0043-0044, for example.

The cited art neither teaches nor suggests these added features of claim 1. In particular, as noted above, Ozugur uses access point MAC addresses only in downlink communications, to solve an entirely different problem from that addressed by claim 1. Therefore, claim 1, as amended, is patentable over the cited art. In view of the patentability of claim 1, dependent claims 2-4 and 14 are also believed to be patentable. Independent claim 15, like claim 1, recites that each access point is assigned its own MAC address and is configured to emulate mobile station communications. Claim 15 has been amended in like fashion to claim 1. Therefore, claim 15 is believed to be patentable for the reasons explained above, as are claims 16 and 17, which depend from claim 15.

Independent claim 32 recites apparatus that operates on principles similar to the method of claim 1. Claim 32 has been amended in like fashion to claim 1 and is therefore believed to be patentable, as well, for the reasons explained above. In view of the patentability of claim 32, dependent claims 33 and 34 are also believed to be patentable.

Dependent claims 7-13, 20-31 and 37-47 were rejected over Sherman in view of Bajic and Ozugur, and further in view of one or more of Honkasalo (U.S. Patent Application Publication 2003/0210674), Chari et al. (U.S. Patent 7,016,328), and Melpignano et al. (U.S. Patent Application Publication 2003/0003912). In view of the patentability of amended independent claims 1, 15 and 32, dependent claims 7-13, 20-31 and 37-47 are also believed to be patentable.

Furthermore, notwithstanding the patentability of the independent claims in this application, Applicant believes that the dependent claims recite independently-

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patentable subject matter. In the interest of brevity, however, Applicant will refrain from arguing the independent patentability of the dependent claims at present.

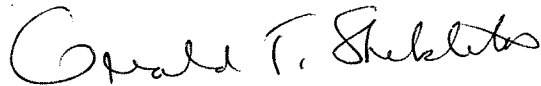
Applicant hereby requests reconsideration and reexamination thereof.

No further fee or petition is believed to be necessary. However, should any further fee be needed, please charge our Deposit Account No. 23-0920, and deem this paper to be the required petition.

With the above amendments and remarks, this application is considered ready for allowance and applicant earnestly solicits an early notice of same. Should the Examiner be of the opinion that a telephone conference would expedite prosecution of the subject application, he/she is respectfully requested to call the undersigned at the below listed number.

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Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald T. Shekleton". The signature is fluid and cursive, with the first name "Gerald" being more prominent than the last name "Shekleton".

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